



Federal Aviation Administration 508 Procurement and Acquisition Guidance

Participant Guide

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FAA Procurement and Acquisition Guidance Participant Guide

Introduction

Overview Of Participant Guide

This Participant Guide provides the specific documents and resource information presented during the FAA Section 508 Procurement and Acquisition Guidance Training session. Copies of the Power Point slides utilized during the training are included along with FAA documents relating to the:

- Section 508 Procurement Requirements
- The Role of the FAA Procurement Team
- FAA Contracting Officer and Requiring Official Role and Responsibilities
- FAA Standard Operating Procedures
- FAA Procurement Checklist
- FAA Procurement Process
- FAA Procurement Example

Contents of the Guide

The Participant Guide includes:

- Procurement and Acquisition Guidance Power Point Slides
- Participants notes
- FAA Procurement Checklist
- FAA Procurement Process
- FAA Standard Operating Procedures
- FAA Procurement and Acquisition Resources

Section 508 Procurement and Acquisition Guidance

Welcome to the FAA Procurement and Acquisition Guidance Participant Guide

- Each participant should have signed the registration list and received a name tag

The 508 Procurement and Acquisition Guidance training will present :

1. Section 508 Procurement requirements
2. FAA Procurement Role in the implementation of Section 508 procurement requirements
3. The FAA Procurement Standard Operating Procedures will be presented and illustrated utilizing the following procurement tools:
 - Procurement Process Flow Chart
 - Procurement Checklist
 - Common Methods for Market Research
 - Definitions
 - Purchase Card Checklist
 - Pre-Award Procurement Tools

When you're finished with this training module, you should understand:

- Section 508 Federal Procurement Requirements
- FAA Procurement Policies and Procedures
- FAA Standard Operating Procedures
- FAA Procurement Checklist
- FAA Procurement Process

The information provided in this Procurement and Acquisition Guidance training has been divided in to the following 4 parts:

- Part 1: FAA Standard Operating Procedures
- Part 2: FAA Procurement Process (Application of the procurement process through the use of FAA procurement examples)

Section 508 uses the Federal procurement process to ensure that technology acquired by FAA is accessible. The following information is an overview of Section 508 procurement requirements:

- By statute, the enforcement provisions of section 508 apply only to electronic and information technology *procured on or after the effective date (6/21/01)*.
- Section 508 does not authorize complaints or lawsuits to retrofit technology procured before this date to meet the Access Board's standards.
- Section 508's enforcement mechanisms apply only to procurement, and do require access to technology *developed, used or maintained* by FAA.
- While manufacturers are not required to modify their products, FAA is required to give priority to procuring products, which comply with the section 508 standards.
- All section 508 requirements are subject to commercial availability and do not apply if doing so would cause significant difficulty or expense for FAA. This is principle of Undue Burden. (508 Reference Manual)

FAA Section 508 Procurement site <http://intranet.faa.gov/aio/508>

Section 508 Procurement: Standard Operating Procedures

Standard operating procedures for procurement

FAST: Federal Aviation Administration Acquisition System Toolset

FAA Section 508 Procurement Guidance

FAA procurement guidance for Section 508 and 'undue burden'. 'Undue burden' is located under Section 5, paragraph (c) titled 'Alternative means'

FAA Procurement Policy

FAA procurement policy is located in section 3.2.2.9, titled 'Section 508 of Rehabilitation Act'

Section 508 Buy Accessible

Buy Accessible represents a partnership between government and industry to provide a service to federal procurement staff. It will assist government personnel in completing market research necessary to ensure that they are buying the most accessible IT products and services available in order to conform to Section 508

Voluntary Product Accessibility Template

The Voluntary Product Accessibility Template is to assist Federal contracting officials in their acquisition planning responsibilities. The intent of the template is to provide a useful and convenient mechanism for vendors to make preliminary assessments regarding the availability of commercial EIT products and services. GSA maintains the template and is a work in progress. Vendors use of the template is voluntary

Procurement Charter – DRAFT

Under Section 508, FAA must give disabled employees and members of the public access to electronic and information technology that is comparable to the access available to others. This team will facilitate the development of methods, techniques, and policies to ensure Section 508 compliance during the procurement and acquisition process.

Procurement Frequently Asked Questions

Frequently Asked Questions about Section 508 procurement procedures and policies

Ask the Question

Do you have a question about Procurement and Acquisition? Send in you question and receive an answer back and help add to the FAA Procurement FAQ database. If you have a question then others might have that same question

FAA Section 508 Procurement Checklist

Standards - Check the Access Board's standards that apply to the EIT purchase

Research - After market research, the product is considered

Exceptions - Check the exception which applies

Part 1: FAA Standard Operating Procedures

This section of the training outlines the FAA Standard Operating Procedures which are utilized to procure and acquire electronic and information technology which is Section 508 compliant. The specific FAA procurement information outlined in the training:

- FAA Procurement Team Members Role
- Procurement Team Members Responsibilities
- FAA DRAFT Procurement Charter
- FAA Standard Operating Procedures

SECTION 508 PROCUREMENT TEAM

The Section 508 Procurement team formed in approximately May of 2001 to develop policies and procedures that would facilitate the implementation of Section 508 within the agency. They produced the 508 Standard Operating Procedures for Procurement and played a significant role in the development of the Section 508 clauses. In February of 2002 in San Diego, California, the Contract Administration Work Group met and developed Section 508 clauses and updates to the 508 SOP.

The 508 Procurement Team Members are as follows:

AGC Robert Zuckerman
ARA Alphonso Barr
ARA Ralph Randall
ARA Martha Weaver
AIO Deborah Douglas-Slade

The Contract Administration Workgroup is as follows:

AMQ Pete Dills
ASU Ralph Randall (Facilitator)
AGC Bob Zuckerman
AEA Terry Mirro
ASO Ima LaMar
ASU David Peterson
AIO Deborah Douglas-Slade (Facilitator)

ROLE AND RESPONSIBILITIES OF FAA SECTION 508 PROCUREMENT TEAM

Role: The 508 Procurement Team will review, research, analyze, and develop processes and procedures to effectively implement Section 508 standards within the agency. The team will develop crosscutting methods and techniques to ensure the needs of users with disabilities are taken into consideration during acquisition planning, procurement, and testing processes. Also, the team will develop a training awareness plan and/or make management, procurement,

and technical personnel aware of Section 508, when required.

Responsibilities:

- Develop policy and guidance to include in the FAA Acquisition and Management System.
- Develop 508 Standard Operating Procedures.
- Monitor the Access Board standards for changes in technology and revise agency procurement policies and directives, as necessary, to incorporate the revisions.
- Advise on the development of Section 508 contract language for use in procurements.
- Review and comment on updates/revisions to the FAR language and make changes to FAA policy and procedures, when required.
- Refer agency personnel involved in EIT procurements to appropriate agency and external resources to ensure Section 508 requirements are incorporated in requirements as applicable.
- Ensure that undue burden documentation, when appropriate, is prepared and maintained within that contract file.
- Ensure that all procurements apply the agency's market research and requirements development procedures to contracting actions. In accordance with the SOP, **the requiring official (not the contracting official) must:**
- Identify which standards apply to the procurement.
- Perform market research to determine the availability of compliant products and services (using vendor web sites and the Section 508 web site, which will link to vendors who describe their accessibility).
- Identify which standards, if any, would not apply in procurement because of non-availability or undue burden and provide written documentation to the contracting officer for inclusion in the contract file.
- Draft technical specifications and minimum requirements to be submitted with the purchase request.
- Meet with the integrated Product Teams and provide advice on how to best implement the 508 provisions in its processes.

The 508 Procurement Team is required to conduct roles and responsibilities that facilitate the 508 compliance of procurement activities within the agency. The below listed responsibilities are subject to change as the Access Board and the General Services Administration issue additional and updated Section 508 policies and procedures. All changes to the FAA 508 Procurement Team's roles and responsibilities will be reflected on the Section 508 web site located at <http://intranet.faa.gov/aio/508>.

DRAFT Procurement Charter

FAA Section 508 Procurement/Acquisition Team

A. Purpose

This team is established to review, research, analyze, and develop processes and procedures to effectively implement Section 508 standards* within the agency. The focus of the team's efforts is to develop crosscutting methods and techniques that ensure the needs of users with disabilities are taken into consideration during the acquisition planning, procurement, and testing processes. Also, the team will develop a training awareness plan and/or make management, procurement, and technical personnel aware of Section 508, when required.

B. Scope

The scope of responsibilities includes developing agency-wide methods and techniques to integrate accessibility issues and mainstream technology procurement processes. The team will on an on-going basis, until a policy is implemented, develop an agency-wide strategy and procurement and acquisition implementation plan with associated costs within the agency. Major elements of the strategy should consist of training, policy needs and assessment, establishment of agency-wide checkpoints, schedule, budget, performance measures, and the establishment of mechanisms to monitor, track, and report accessibility needs.

C. Team Membership

The team will consist of personnel in the following functions and/or disciplines: Contracting Officers, procurement personnel, General Council, Information Technology professionals, union representative, and person with accessibility needs.

D. Operating Procedures

The team will convene on an as needed basis. Once an agency-wide policy is in place, the team will reassess its need for existence.

E. Reporting Process

The team will develop a monthly status report that will be delivered to the Chairman of the Section 508 Strategic Planning Council, Deputy Chief Information Officer. The status report will identify accomplishments for the reporting period; activities planned for the next reporting period, resources issues, and agency-wide section 508 issues and concerns.

F. Responsibilities of the Team

The responsibilities of the Section 508 Procurement and Acquisition Team are to:

Ensure that mechanisms are in place within the agency for all procurements to apply Section 508 requirements such as:

- Identify which standards apply to the procurement;
- Perform market research to determine the availability of compliant products and services (use web links);
- Identify which standards, if any, that could not apply in a procurement because of non-availability or undue burden and provide written documentation to the Contracting Officer's file
- Ensure that undue burden documentation, when appropriate, is prepared and maintained in the contract file.

Develop a training awareness plan with schedule.

Conduct awareness-training sessions with Contracting Officers, procurement personnel, and technical personnel on Section 508 standards and requirements.

Monitor and analyze Contracting Officers and procurement personnel feedback when interim guidance is issued, and develop new guidance, accordingly.

Analyze the Section 508 procurement/acquisition process and ensure appropriate performance measures are in place to issue reports to the Department of Justice and Congress, upon request. Identify and implement reporting and monitoring mechanisms that allow the identification of exceptions i.e. undue burden, non-availability.

Request status reports of checkpoint personnel i.e. Contracting Officers and appropriate procurement personnel to ensure agency accessibility needs are being met.

Monitor the Access Board standards for changes in technology and revise agency procurement policies and directives, as necessary, to incorporate the revisions.

Develop an agency-wide Section 508 Procurement and Acquisition Implementation Plan.

Develop an agency-wide Section 508 Procurement and Acquisition order and/or policy.

Note: * Section 508 standards include the following:

- * 1194.21-software applications and operating systems
- * 1194.22-web-based information or applications
- * 1194.23-telecommunications products
- * 1194.24-video and multimedia products
- * 1194.25-self contained, closed products (e.g., information kiosks, calculators, copiers, and fax machines)
- * 1194.26-disktop and portable computers

This section of the training outlines in detail the FAA Procurement Standard Operating Procedures for completing the procurement and acquisition of electronic and information technology according to the requirements and technical standards of Section 508. The specific sections of the FAA SOP are:

- Contracting Officer's Role and Responsibilities
- Requirement Organization's Role and Responsibilities
- Purchases for EIT
- Exceptions
- EIT is not Available
- Undue Burden
- Procurement Evaluation Factors to Consider
- Purchase Card Section 508 Guidance
- FAA Section 508 Procurement Checklist
- Common Methods to Use for Market Research
- Definitions
- FAA Section 508 Requiring Organization Checklist for Purchase Cards
- Procurement Tools for Contract Pre-Award Task
- Electronic and Information Technology Access Board Standards

Introduction

The FAA Acquisition Management System (AMS), Rehabilitation Act policy mandates that after June 21, 2001, new procurements (contract awards, task orders, delivery orders, orders under government-wide schedules, interagency agreements) shall include requirements that have provisions for Electronic and Information Technology (EIT) Accessibility Standards (for telecommunication products, information kiosks, transaction machines, web sites, multimedia, office equipment and others). The applicable EIT standards are those initiated by the U.S Architectural and Transportation Barriers Compliance Board (Access Board). For your support, Exhibit A, a checklist designed to aid EIT requirement identification, market research documentation, exception and undue burden codification is included.

Additional information on the AMS policy and guidance, Access Board and Section 508 of the Rehabilitation Act can be obtained at the following websites:

AMS Policy: <http://fast.faa.gov/ams/ams3-2.htm>

Note: Paragraph 3.2.2.9, titled "Section 508 Rehabilitation Act"

AMS Guidance: http://fast.faa.gov/procurement_guide/html/3-2-2.htm#5

Note: Source Selection, sub-paragraph 5

Access Board: <http://www.access-board.gov>

Section 508: <http://www.Section508.gov>.

1. Contracting Officer's Role and Responsibilities

- Ensure that the Screening Information Request, Statement of Work and resulting contract or other agreement contain a reference, with supporting documentation, to obtain EIT compliant with Access Board standards.
- Maintain in the contract file appropriate records to account for exceptions, non-availability, or undue burden determinations for EIT purchases.
- Coordinate with agency council regarding Section 508 issues including “undue burden.”
- Ensure proper use of the Pre-award Tools found in Exhibit E

2. Requirement Organization's Role and Responsibilities

- Understand the Access Board's EIT standards located at <http://www.access-board.gov/sec508/508standards.htm> and available resources at <http://www.Section508.gov>.
- Identify the appropriate reference for SIR and SOW inclusion from the “Purchases for EIT” paragraph included in this document.
- Conduct market research i.e. information on vendor websites and the government's Section 508 web site (refer to Exhibit B).
- Document in writing non-availability, including market research performed and standards that cannot be met. Forwarded non-availability documentation to the Contracting Officer for inclusion in the contract file.
- Determine Undue Burden (refer to section 6 below).
- Shall complete THE SECTION 508 REQUIRING ORGANIZATION CHECKLIST FOR PURCHASE CARDS (refer to Exhibit D).

3. Purchases for EIT

When a determination that the new procurement is for EIT is made, a reference to the applicable standard of 36 CFR Part 1194 requirement is identified: (Refer to website:<http://www.access-board.gov/sec508/guide/index.htm>)

- 1194.21-Software applications and operating systems
- 1194.22-Web-based information or applications
- 1194.23-Telecommunication products
- 1194.24-Video and multimedia products

- 1194.25-Self contained, closed products (e.g., information kiosks, calculators, copiers, and fax machines)
- 1194.26-Desktop and portable computers
- 1194-31-Functional Performance Criteria
- 1194-41-Information, Documentation and Support

4. Exceptions

Section 508 compliance is not required, if the EIT can be classified as an exception. The FAA Section 508 Procurement Checklist identifies the Section 508 exceptions, as follows:

- EIT acquired by a contractor incidental to a Federal contract;
- EIT for a national security system (defined by Clinger-Cohen Act);
- EIT located in spaces frequented only by service personnel for maintenance, repair or occasional monitoring of equipment; and
- EIT that would impose an undue burden on the agency.

5. EIT is not Available

When acquiring commercial items, an agency must comply with those accessibility standards that can be met with supplies or services that are available in the commercial marketplace in time to meet the agency's delivery requirements. When EIT is not available, the market research performed and standards that cannot be met must be documented and included in the contract file.

6. Undue Burden

Agencies are required by statute to document the basis for an undue burden. Requiring organizations should be aware that when there is an undue burden, the statute requires an alternative means of access be provided to individuals with disabilities. In determining whether an action would result in an undue burden, an agency shall consider all agency resources available to the program or component for which the product is being developed, procured, maintained, or used.

An undue burden is a purchase that would be considered a significant difficulty or expense. The significant difficulty or expense must be substantiated with the following:

- the applicable technical provisions of the Access Board's standards;
- the market research performed to locate items that meet the applicable technical provisions;
- the specific provisions that cannot be met as a result of undue burden;
- the estimated cost of acquiring EIT that meets the applicable technical provisions along with an explanation of how costs were estimated; and
- all funds available to the agency including the component for which the supply or service is being acquired.

7. Procurement Evaluation Factors to Consider

During the evaluation of EIT procurements, consider the following factors:

- The technical standards are **mandatory** requirements that must be met (directly or through equivalent facilitation) unless (a) the product or service (if it is a commercial item) is not available, (b) an exception applies (such as an undue burden) or (c) meeting the applicable provisions would require the agency to alter its requirements to the point where the procured EIT would not meet its needs.
- If an exception applies preventing an agency's acquisition of EIT that meets all of the applicable technical provisions (e.g. no such products are available in the commercial marketplace), the agency may acquire EIT that meets some of those provisions.
- If an exception applies to an agency's acquisition of EIT that meets some of the applicable provisions, the agency may acquire EIT that does not meet any of those provisions.
- An agency is not required to alter its acquisition requirements in order to comply with Section 508 if the alteration would be so fundamental that the agency would no longer be procuring EIT that meets its needs.

8. Purchase Card Section 508 Guidance

EIT procurements with FAA purchase cards shall be made for products and services that meet the Access Board standard. Buyers are strongly encouraged to comply with the Section 508 accessibility standards to the maximum extent practicable. The same applies to FAA purchase cardholders.

When purchase cards are used the checklist found in Exhibit D shall be completed.

Exhibit A

FAA SECTION 508 PROCUREMENT CHECKLIST

STANDARDS

Check the Access Board's standards that apply to the EIT purchase:

- ☐ 1194.21 Software Applications and Operating Systems
- ☐ 1194.22 Web-based Information or applications
- ☐ 1194.23 Telecommunication Products
- ☐ 1194.24 Video and Multimedia Products
- ☐ 1194.25 Self-Contained Products
- ☐ 1194.26 Desktop and Portable Computers
- ☐ 1194.31 Functional Performance Criteria
- ☐ 1194.41 Information, Documentation and Support
- ☐ Request vendor Section 508 compliance template (e.g. vendor's website or other website location)

RESEARCH

After market research, the product is considered:

- ☐ Compliant
- ☐ Partially compliant
- ☐ Noncompliant
- ☐ EIT is not available

EXCEPTIONS

- ☐ EIT acquired by a contractor incidental to a Federal contract
- ☐ EIT for a national security system
- ☐ EIT located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment
- ☐ EIT that would impose an **UNDUE BURDEN** on the agency

EXHIBIT B

COMMON METHODS TO USE FOR MARKET RESEARCH

- Visiting the Buy Accessible website:
http://www.Section508.gov/buy_accessible/main.cfm Government procurement personnel will be able to search the site by specific product or service and see all vendors who have provided links. They can use the links to reach the template information and product and service descriptions necessary to complete the market research. Vendor participation is voluntary.
 - Contacting knowledgeable individuals in Government and industry regarding market capabilities to meet requirements.
 - Reviewing the results of recent market research undertaken to meet similar or identical requirements.
 - Publishing formal requests for information in appropriate technical or scientific journals, business publications, or in electronic data exchanges.
 - Querying Government databases that provide information relevant to agency acquisitions.
 - Participating in interactive, on-line communication among industry, acquisition personnel, and customers.
 - Attending trade shows and receiving capability and “futures” briefings from original equipment manufacturers and developers.
 - Obtaining source lists of similar items from other agencies, contracting activities, trade associations, or other sources.
 - Reviewing catalogs and other generally available product literature published by manufacturers, distributors, and dealers (or available on-line).
 - Conducting interchange meetings or holding presolicitation conferences to involve potential offerors early in the acquisition process.
 - Releasing to industry information on planned acquisitions and draft solicitations (which often prompts contractors to submit comments and information on products

and capabilities).

- Using technical analysis publications.
- Using the Internet to post requests for information or to search for technical information.
- Reviewing Government-managed web sites that provide information on products and pricing (often available from existing Government contracts).

EXHIBIT C

Definitions

Access Board. The U.S. Architectural and Transportation Barriers Compliance Board is an independent Federal agency devoted to people with disabilities. It operates with a staff of about 30 and a governing board of representatives from Federal departments and public members appointed by the President. Key responsibilities of the board include:

- Developing and maintaining accessibility requirements for the built environment, transit vehicles, telecommunications equipment, and for electronic and information technology;
- Providing technical assistance and training on these guidelines and standards; and
- Enforcing accessibility standards for federally funded facilities.

Alternate means of access. Focuses on the accessibility of the information and data, rather than the technology. Alternative means may include, but are not limited to: voice, fax, relay service, qualified sign language interpreters, TTY, Internet posting, captioning, text-to-speech synthesis, readers, personal assistants, or audio description.

Electronic and Information Technology (EIT). Any equipment or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For purposes of the preceding sentence, equipment is used by the FAA if the equipment is used by the FAA directly or is used by a contractor under a contract with the FAA which (i) requires the use of such equipment, or (ii) requires the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product. EIT includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services) and related resources. EIT includes:

- Telecommunication products, such as telephones;
- Information kiosks;
- Transaction machines;
- World Wide Web sites;
- Multimedia (including videotapes) and
- Office equipment, such as copiers and fax machines.

Exceptions. Agencies are not required to acquire EIT that meets the technical provisions of the Access Board's standards if the procurement:

- is for a national security system;
- is acquired by a contractor incidental to a contract;
- is located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring equipment; and
- would impose an undue burden on the agency.

Undue Burden. The EIT purchase is a significant difficulty or expense to the agency.

EXHIBIT D

FAA SECTION 508 REQUIRING ORGANIZATION CHECKLIST FOR PURCHASE CARDS

- 1. If Section 508 compliant products/services are available:** document that the selected product(s)/service(s) are Section 508 compliant [i.e. by using the Buy Accessible website: http://www.Section508.gov/buy_accessible/main.cfm or by obtaining certification from the vendor].

_____Make purchase.

- 2. If Section 508 compliant products/services are *not* available:**
Document the non-availability and submit to the contracting officer and/or the cardholder making the purchase.

_____Make purchase.

- 3. If Section 508 compliant products/services are available,** but the requiring organization determines that an exception to Section 508 applies (i.e. undue burden on agency; national security; equipment in spaces frequented by backroom personnel):

_____Purchase cards shall NOT be used.

Signature

Date

EXHIBIT E

Procurement Tools for contract pre-award task

Public Announcement / Market Survey / Screening SIR

1. The FAA has determined that this requirement must comply with the following accessibility standards under Section 508 of the Rehabilitation Act of 1973. The standards can be located at www.access-based.gov/sec508/508standards.htm

- Insert appropriate 1194.XX
- Insert appropriate 1194.XX

Offerors that fail to comply with the above standards, or provide equivalent salient characteristics, will be eliminated from further consideration for award.

2. Offers must submit with their proposal on company letterhead with supporting documentation, a certification of compliance with the above accessibility standards. Failure to provide this certification shall eliminate the offeror from further consideration for this award.

Section C Statement of Work

FAA has determined that the following accessibility standards (36 CFR Part 1194) apply to this procurement under Section 508 of the Rehabilitation Act of 1973.

- + Insert appropriate 1194.XX
- + Insert appropriate 1194.XX

(Attached at Section J)

The contractor shall deliver products and/or services that provide the features described in the above standards, or equivalent salient characteristics. Additionally, the contractor shall provide product support documentation and services (i.e. help desk and training) in alternate formats in order to accommodate end users with disabilities.

Section L Required Submissions

Offerors must certify on company letterhead, with supporting documentation, that offeror complies with the accessibility standards under Section 508 of the Rehabilitation Act of 1973 identified in Section C – Statement of Work. Failure to provide certification/supporting documentation shall eliminate the offeror from further consideration for award.

Section M Evaluation Factors

Offerors must demonstrate compliance, as described in Section L of this solicitation, with the applicable accessibility standards under Section 508 of the Rehabilitation Act of 1973 identified in Section C of this solicitation and attached at Section J. Offerors that fail to demonstrate compliance with the applicable accessibility standards identified in Section C of this solicitation shall be eliminated from further consideration for award.

Section J Electronic Information Technology Access Board Standards

36 Code of Federal Regulations Part 1194 Subpart B Section 21 Software applications and operating systems

- (a) When software is designed to run on a system that has a keyboard, product functions shall be executable from keyboard where the function itself or the result of performing a function can be discerned textually.
- (b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.
- (c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus and focus changes.
- (d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to assistive technology. When an image represents a program element, the information conveyed by the image must also be available in text.
- (e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.

- (f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.
- (g) Applications shall not override user selected contrast and color selections and other individual display attributes.
- (h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.
- (i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting response, or distinguishing a visual element.
- (j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.
- (k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.
- (l) When electronic forms are used, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

36 Code of Federal Regulations Part 1194 Subpart B Section 22
Web-based Intranet and Internet Information and Applications

- (a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).
- (b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.
- (c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.
- (d) Documents shall be organized so they are readable without requiring an associated style sheet.
- (e) Redundant text links shall be provided for each active region of a server-side image map.
- (f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

- (g) Row and column headers shall be identified for data tables.
- (h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.
- i) Frames shall be titled with text that facilitates frame identification and navigation.
- (j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.
- (k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.
- (l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.
- (m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).
- (n) When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.
- (o) A method shall be provided that permits users to skip repetitive navigation links.
- (p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

36 Code of Federal Regulations 1194 Subpart B Section 23
Telecommunication Products

- (a) Telecommunications products or systems which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic connection point for TTYs.. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.
- (b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY

signal protocols.

- (c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.
- (d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval, shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.
- (e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.
- (f) For transmitted voice signals, telecommunications products shall provide a gain adjustable up to a minimum of 20dB. For incremental volume control, at least one intermediate step of 12 dB of gain shall be provided.
- (g) If the telecommunications product allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.
- (h) Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.
- (i) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications product.
- (j) Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.
- (k) Products which have mechanically operated controls or keys, shall comply with the following:
 - (1) Controls and keys shall be tactilely discernible without activating the controls or keys.
 - (2) Controls and keys shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls and keys shall be 5 lbs.. (22.2 N) maximum.
 - (3) If key repeat is supported, the delay before repeat shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.

- (4) The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.

36 Code of Federal Regulations Part 1194 Subpart B Section 24

Video and Multimedia Products

- (a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, wide screen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.
- (b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.
- (c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.
- (d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.
- (e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.

36 Code of Federal Regulations 1194 Subpart B Section 25

Self contained, closed products (Kiosks, ATMs, etc.)

- a) Self contained products shall be usable by people with disabilities without requiring an end-user to attach assistive technology to the product. Personal headsets for private listening are not assistive technology.
- (b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.
- (c) Where a product utilizes touch screens or contact-sensitive controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).

- (d) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.
- (e) When products provide auditory output, the audio signal shall be provided at a standard signal level through an industry standard connector that will allow for private listening. The product must provide the ability to interrupt, pause, and restart the audio at anytime.
- (f) When products deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.
- (g) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.
- (h) When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.
- (i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.
- (j) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following:
 - (1) The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length (see Figure 1 of this part).
 - (2) Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.
 - (3) Where any operable control is more than 10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.
 - (4) Operable controls shall not be more than 24 inches behind the reference plane (see Figure 2 of this part).

36 Code of Federal Regulations Part 1194 Subpart B Section 26
Desktop and Portable Computers

- (a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4).

- (b) If a product utilizes touch screens or touch-operated controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).
- (c) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.
- (d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards.

36 Code of Federal Regulations Part 1194 Subpart C-Section 41
Functional Performance Criteria

- a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or
- support for assistive technology used by people who are blind or visually impaired shall be provided.
- (b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for assistive technology used by people who are visually impaired shall be provided.
- (c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or
- support for assistive technology used by people who are deaf or hard of hearing shall be provided.
- (d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.
- (e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for assistive technology used by people with disabilities shall be provided.
- (f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.

36 Code of Federal Regulations Part 1194 Subpart D-Section 41
Information, documentation, and support

- (a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge.

- (b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.
- (c) Support services for products shall accommodate the communication needs of end-users with disabilities.

Part 2: FAA Procurement Process

This section of the training focuses on the application of the FAA Standard Operating Procedures through the utilization of the FAA Procurement Process Flow Chart and FAA Procurement Example. The procurement process illustration is intended to assist participants in understanding the FAA procurement process utilized to procure and acquire EIT precuts and services which are Section 508 compliant which are utilized to procure and acquire electronic and information technology which is Section 508 compliant. The specific FAA procurement information outlined in the training:

- FAA Procurement Process Flow Chart
- FAA Procurement Checklist
- FAA Procurement Frequently Asked Questions
- FAA Web Based Training Procurement Example

FAA Procurement Process Flow Chart

Error! Objects cannot be created from editing field codes.

Exhibit A

FAA SECTION 508 PROCUREMENT CHECKLIST

STANDARDS

Check the Access Board's standards that apply to the EIT purchase:

- ☐ 1194.21 Software Applications and Operating Systems
- ☐ 1194.22 Web-based Information or applications
- ☐ 1194.23 Telecommunication Products
- ☐ 1194.24 Video and Multimedia Products
- ☐ 1194.25 Self-Contained Products
- ☐ 1194.26 Desktop and Portable Computers
- ☐ 1194.31 Functional Performance Criteria
- ☐ 1194.41 Information, Documentation and Support
- ☐ Request vendor Section 508 compliance template (e.g. vendor's website or other website location)

RESEARCH

After market research, the product is considered:

- ☐ Compliant
- ☐ Partially compliant
- ☐ Noncompliant
- ☐ EIT is not available

EXCEPTIONS

- ☐ EIT acquired by a contractor incidental to a Federal contract
- ☐ EIT for a national security system
- ☐ EIT located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment
- ☐ EIT that would impose an **UNDUE BURDEN** on the agency

Procurement Frequently Asked Questions

Where is FAA's Section 508 Procurement and Acquisition guidance located?

Answer: The 508 Procurement and Acquisition Team has included policy and guidance in the Acquisition Management System (AMS). Specifically, you should refer to [FAST AMS policy guidance](http://fast.faa.gov/ams/ams3-2.htm) at: <http://fast.faa.gov/ams/ams3-2.htm> at section 3.2.2.9, titled "Section 508 Rehabilitation Act." Procurement guidance for Section 508 and "[undue burden](#)" is located at <http://fast.faa.gov/procurementguide/html/3-2-2.htm#5>. Undue burden is located under Section 5, paragraph (c) titled "alternative means."

FAA personnel knowledgeable of Section 508, procurement, legal and electronic and information technology continue to meet to further explore improvements to Section 508 implementation. Please refer to the [Procurement Section](#) at <http://www.interweb.faa.gov/aio/508> for more information.

Are there any FAA procurement and acquisition exceptions to Section 508?

Answer: While the FAA has incorporated interim guidance in the AMS, it continues to review

and analyze the exceptions recognized by the Federal Acquisition Regulations. The EIT exceptions are: (1) Micro-purchases, prior to January 1, 2003, (However, FAA Acquisition personnel are strongly encouraged to comply with the accessibility standards to the maximum extent practicable.), (2) national security systems, (3) products acquired by a contractor incidental to a contract, (3) EIT located in spaces frequented only by service personnel, maintenance, repair or occasional monitoring of equipment, and (4) EIT that would impose an undue burden on the agency. The Section 508 Procurement and Acquisition Team is currently reviewing and analyzing feedback from Headquarter and Regional personnel to determine the exceptions applicability to the FAA. Please contact the team if you have acquisition lessons learned or feedback that you believe should be included in Section 508 guidance.

FAA Section 508 Procurement Guidance

Section 508 of Rehabilitation Act [\(Revised 07/2001\)](#)

a Definition. [\(Revised 07/2001\)](#)

Electronic and information technology (EIT) means any equipment or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For purposes of the preceding sentence, equipment is used by the FAA if the equipment is used by the FAA directly or is used by a contractor under a contract with the FAA which (i) requires the use of such equipment, or (ii) requires the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product. EIT includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services) and related resources. Electronic and information technology does not include any equipment acquired by a Federal contractor incidental to a Federal contract.

Requirements for Accessibility. [\(Revised 07/2001\)](#)

Section 508 of the Rehabilitation Act of 1973 specifies that persons with disabilities that are either Federal employees or members of the public seeking information or services from a Federal department are to have the access to and use of information and data comparable to the access and use of the information and data by Federal employees who do not have disabilities. Section 508 is applicable when using contract awards, task orders, delivery orders, orders under Government-wide Schedules and Interagency Agreements. The IPT will insert Section 508 requirements into SIR's that include the development, purchase, maintenance, or use of electronic and information technology unless such requirement imposes an undue burden on the FAA (see c. "Alternative Means" below). Inserting these requirements will assure that electronic and information technology is accessible and useable to groups identified in Section

508.

c. Alternative Means. (Revised 07/2001)

When application of the requirements of Section 508 (see b "Requirements for Accessibility" above) would impose an undue burden, the FAA may provide individuals with disabilities covered by Section 508, the information and data involved by an alternative means of access that allows the individual to use the information and data. Contracting *Officers determine the acceptability of "Undue Burden Rationale"*.

FAA Procurement Policy

3.2.2.9 Rehabilitation Act (Added 06/2001)

The FAA shall comply with Section 508 of the Rehabilitation Act of 1973 in developing, procuring, maintaining or using electronic and information technology. Section 508 of the Rehabilitation Act of 1973 applies to all new procurements after June 21, 2001

FAA Procurement Example

Situation

1. FAA employee is seeking guidance from the Section 508 Procurement Team on how to include Section 508 wording in the Statement of Work to procure/acquire web based training with a target audience within and outside of FAA.
2. The existing contract has been in place for 2 years which was before the Section 508 effective date of June 21, 2001. The FAA employee strongly believed that she was not legally bound by the Section 508 requirements.
3. The employees' manager wants to be assured that the web based course is 508 compatible.
4. Management believes that by assuring 508 compliance now while the course is not yet developed will ensure that they are ahead cost wise and will not have to update the course later.
5. The employee wants to do the right thing and avoid reissuing the contract at a later date.
6. The employees requested the existing contractor research 508 issues and provide an explanation as to how the contractor would be in 508 compliance.

7. The employee indicated to the contractor that they could run the online lessons through the DOT Disability Resource Center (DRC) to determine 508 compliance.

Product

1. **Web-Based Training** - The first half of the online training course will be delivered on the Internet. The existing contractor has no problem with making the course 508 compliant. The employee would like to know what working needs to be added to the statement of work to ensure 508 compliance.
2. **Classroom Training** - This will be delivered in an automated classroom. This means that students will be sitting at computers and some of the exercises done in class will be completed at the computer. The students will need to read the input data and responses. Does the classroom training need to be 508 compliant?

Section 508 Compliance Plan Example

1. Provide Alternate Text -

Still graphics - will use alt tags that describe the graphics; these are read by the assistive technology(AT), such as the JAWS reader.

Example (from the Section 508 Universe web site): ALT="Image of the FITAI logo under a banner Welcome to the 508 Universe."

Flash animations - Will use hidden text blocks to describe the animations; these are read by the (AT).

Example (from the Section 508 Universe web site): `<p class="hidden">.A flash animation of a keyhole spinning. The words "Opening Doors to IT" appear beyond the keyhole. The keyhole begins to spin again and transforms into five spinning stars that magnify to form a FITAI logo. The stars from the logo move above and the words "Welcome to the 508 Universe" display. An "Enter Site" link appears at the bottom of the page."` `</p>`

2. Meaning must be independent of color

This is a design rule to be observed by the Instructional designers and artists.

3. Identify language changes

It is not anticipated that any language other than English will be used in the course, but should that change, the change will be indicated in the HTML code.

4. Style sheet independent

It is not anticipated that style sheets will be used for this course; should that change, pages will be made intelligible without the style sheet

5. Update equivalents for dynamic content

It is not anticipated that dynamically-generated content will be used in this course; should that change, the use of the necessary alt tags, hidden text blocks, captions, etc. will be generated along with audio-visual content.

6. Redundant text links for server-side image maps

It is not anticipated that server-side image maps will be used in this course; should that change, redundant text links (which is a standard web design practice) will be created.

7. Use client-side image maps whenever possible

It is not anticipated that image maps will be used in this course; should they be necessary, client-side image maps will be used.

8. Row and Column Headers in Data tables

9. Data cells must be associated with header cells

For any data tables in this course, the recommended method for tagging the cells in the table will be used. Clear, detailed examples have been located as to how this is done at www.section508.gov.

10. Title all frames

It will be insured that all HTML frames have meaningful titles, to make navigation easier for the visually-impaired.

11. Script Independent

Specifically, the Section 508 guidelines state that all content on the screen will be device-input independent. For us this means that no content on the page will be triggered by the mouse only; i.e., if mouse rollovers display content, an alternative way must be provided for the user to access that content without a mouse (invisible links, hidden text blocks, etc.)

12. Synchronize multimedia equivalents

For any animations that have synchronized audio, synchronized captions that can be toggled on and off will be included. As stated above (in item 1) all animations will have descriptions hidden text blocks that will be read by the AT.

13. Provide option to skip repetitive links

It is the assumption that WebCT version 3.6+, which is Section 508-compliant version of WebCT, has this feature. This is not a feature web authors can control as WebCT authors.

14. Program must be navigable by use of the keyboard

All navigation options, all buttons and links, and every control in the course will be accessible by keyboard control, or else alternative controls will be provided. For instance, if buttons appear in Flash animations that are used to trigger the display of content, an alternate keyboard-accessible link to that content will be provided.

15. Program must not flash/blink anything on the screen in the range of 2hz to 55hz

In other words, 1 Hz (once per second) or 56 Hz or faster is acceptable. These limits will be observed if any flashing content is to be developed.

16. HTML content should use standard paragraph styles or CSS.

This is web programming “best practice” that will be observed for this course.

17. All required browser plug-ins, themselves, be compliant with the applicable Section 508 regulations.

The only plug-in that the course will require is the Flash Player plug-in which the government has endorsed for use in Section 508 compliant software.

18. All required applets must themselves be compliant with the applicable Section 508 regulations

This course will not require the use of any applets.

Section 508 Procurement and Acquisition Resources

Buy Accessible:

[508 and You - Requiring Official](http://section508.gov/index.cfm?FuseAction=Content&ID=56)

<http://section508.gov/index.cfm?FuseAction=Content&ID=56>

[Buy Accessible - Government Purchasers](http://section508.gov/index.cfm?FuseAction=Content&ID=106&Method=Print)

<http://section508.gov/index.cfm?FuseAction=Content&ID=106&Method=Print>

[Buy Accessible – General Information](http://section508.gov/index.cfm?FuseAction=Content&ID=2)

<http://section508.gov/index.cfm?FuseAction=Content&ID=2>

[Section 508 Acquisition FAQ's](http://section508.gov/index.cfm?FuseAction=Content&ID=75)

<http://section508.gov/index.cfm?FuseAction=Content&ID=75>

[Voluntary Product Assembly Template](http://www.itic.org/policy/vpat.html)

<http://www.itic.org/policy/vpat.html>